

## REMARKS

The Office Action of April 10, 2007 (hereinafter "Office Action") has been carefully reviewed. A Request for Continued Examination accompanies this amendment. Claims 1-4, 6-9, 11-18, 20, 22-27, and 30-33 are pending in this patent application. By this amendment, claims 1, 7, 12, 17, 22 and 30 have been amended and claims 36-38 had been added. Please note that Claims 28 and 29 have been previously withdrawn from further consideration.

The present amendment and the accompanied Request for Continued Examination are being filed under Certificate of Mailings as indicated.

### **Claim Rejections – 35 USC § 102**

Claims 1-4, 6-9, 11-18, 20 and 30-33 were rejected under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 5,954,722 to Bono (hereinafter "Bono"). Amendments and arguments are provided below in response to this rejection. Reconsideration of the rejection to claims 1-4, 6-9, 11-18, 20 and 30-33, in light of the arguments provided below, is respectfully requested.

#### Discussion Regarding Patentability of Amended Claim 1

##### *Currently Amended Claim 1*

Claim 1, as currently amended, recites the following limitations:

a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft.

Bono does not disclose the use of “a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft” as now claimed in claim 1.

In particular, the bone screws 18 in Bono include threads for securing the plate 12 to bone. The bone screws 18 are shown clearly in FIG. 5. The Examiner alleges on page 3 of the Office Action that “the Bono stem has a non-threaded external periphery” The marked up Figure 6 on page 4 of the Office Action that the Examiner uses to support this allegation does not have a non-threaded external periphery terminating in a tip on a first end of the shaft . The portion of the screw of Bono that the Examiner alleges to be a non-threaded external periphery is positioned immediately under the head of the screw 18. Bono does not disclose any other screws that would qualify as a pin having a non-threaded external periphery terminating in a tip on a first end of the shaft as claimed in claim 1 as now amended. Bono does not disclose the use of “a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft” as now claimed in claim 1.

Anticipation under 35 U.S.C. § 102 is proper only if the prior art reference discloses each and every element of the claim. Since the locking plate apparatus 10 in Bono does not disclose each and every element of Applicants’

claim 1 as amended, Bono does not anticipate amended claim 1. Therefore, the rejection of claim 1 under 35 U.S.C. 102(b) as being anticipated by Bono is thereby believed to be overcome.

Discussion Regarding Patentability of Claims 2-4 and 6 Dependent On Amended Claim 1

Claims 2-4 and 6 depend on claim 1 and are thus allowable for, at least, the reasons set forth above with respect to amended claim 1.

Discussion Regarding Patentability of Amended Claim 7

*Currently Amended Claim 7*

Claim 7, as currently amended, recites the following limitations, similar to those of claim 1:

a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft.

Bono does not disclose the use of “a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft” as now claimed in claim 7.

In particular, the portion of the screw of Bono that the Examiner alleges to be a non-threaded external periphery is positioned immediately under the head of the screw 18. Accordingly for substantially the same reasons as above apply with regard to the rejection to claim 1, Bono does not disclose the use of “a pin

including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft" as claimed in claim 7 as now amended.

Since the locking plate apparatus 10 in Bono does not disclose each and every element of Applicants' claim 7 as amended, Bono does not anticipate amended claim 7. Therefore, the rejection of claim 7 under 35 U.S.C. 102(b) as being anticipated by Bono is thereby believed to be overcome.

Discussion Regarding Patentability of Claims 8-9 and 11 Dependent On Amended Claim 7

Claims 8-9 and 11 depend on claim 7 and are thus allowable for, at least, the reasons set forth above with respect to amended claim 7.

Discussion Regarding Patentability of Amended Claim 12

*Currently Amended Claim 12*

Claim 12, as currently amended, recites the following limitations, similar to those of claim 1:

a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft.

In particular, the portion of the screw of Bono that the Examiner alleges to be a non-threaded external periphery is positioned immediately under the head of the screw 18. Accordingly for substantially the same reasons as above apply with regard to the rejection to claim 1, Bono does not disclose the use of "a pin

including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft" as claimed in claim 12 as now amended.

Since the locking plate apparatus 10 in Bono does not disclose each and every element of Applicants' claim 12 as amended, Bono does not anticipate amended claim 12. Therefore, the rejection of claim 12 under 35 U.S.C. 102(b) as being anticipated by Bono is thereby believed to be overcome.

Discussion Regarding Patentability of Claims 13-16 Dependent On Amended Claim 12

Claims 13-16 depend on claim 12 and are thus allowable for, at least, the reasons set forth above with respect to amended claim 12.

Discussion Regarding Patentability of Amended Claim 17

*Currently Amended Claim 17*

Claim 17, as currently amended, recites the following limitations, similar to those of claim 1:

a first pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft.

In particular, the portion of the screw of Bono that the Examiner alleges to be a non-threaded external periphery is positioned immediately under the head of the screw 18. Accordingly for substantially the same reasons as above apply with regard to the rejection to claim 1, Bono does not disclose the use of "a pin

including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft" as claimed in claim 17 as now amended.

Since the locking plate apparatus 10 in Bono does not disclose each and every element of Applicants' claim 7 as amended, Bono does not anticipate amended claim 17. Therefore, the rejection of claim 17 under 35 U.S.C. 102(b) as being anticipated by Bono is thereby believed to be overcome.

Discussion Regarding Patentability of Claims 18 and 20 Dependent On

Amended Claim 17

Claims 18 and 20 depend on claim 17 and are thus allowable for, at least, the reasons set forth above with respect to amended claim 17.

Discussion Regarding Patentability of Amended Claim 22

*Currently Amended Claim 22*

Claim 22, as currently amended, recites the following limitations, similar to those of claim 1:

a first pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft.

In particular, the portion of the screw of Bono that the Examiner alleges to be a non-threaded external periphery is positioned immediately under the head of the screw 18. Accordingly for substantially the same reasons as above apply with regard to the rejection to claim 1, Bono does not disclose the use of "a pin

including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft" as claimed in claim 22 as now amended.

Since the locking plate apparatus 10 in Bono does not disclose each and every element of Applicants' claim 22 as amended, Bono does not anticipate amended claim 22. Therefore, the rejection of claim 22 under 35 U.S.C. 102(b) as being anticipated by Bono is thereby believed to be overcome.

Discussion Regarding Patentability of Claims 23-27 Dependent On Amended Claim 22

Claims 23-27 depend on claim 22 and are thus allowable for, at least, the reasons set forth above with respect to amended claim 22.

Discussion Regarding Patentability of Amended Claim 30

*Currently Amended Claim 30*

Claim 30, as currently amended, recites the following limitations, similar to those of claim 1:

a first pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft .

In particular, the portion of the screw of Bono that the Examiner alleges to be a non-threaded external periphery is positioned immediately under the head of the screw 18. Accordingly for substantially the same reasons as above apply with regard to the rejection to claim 1, Bono does not disclose the use of "a pin

including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft" as claimed in claim 30 as now amended.

Since the locking plate apparatus 10 in Bono does not disclose each and every element of Applicants' claim 30 as amended, Bono does not anticipate amended claim 30. Therefore, the rejection of claim 30 under 35 U.S.C. 102(b) as being anticipated by Bono is thereby believed to be overcome.

Discussion Regarding Patentability of Claims 31-33 Dependent On Amended Claim 30

Claims 31-33 depend on claim 30 and are thus allowable for, at least, the reasons set forth above with respect to amended claim 30

**Claim Rejections – 35 USC § 103**

Claims 7-9, 11-18, 20, 22-27 and 30-33 were rejected under 35 USC §103(a) as being unpatentable over PCT Patent Publication WO 01/19267 to Weaver et al. (hereinafter "Weaver") in view of U.S. Patent 6,030,389 to Wagner et al. (hereinafter "Wagner"). Arguments are provided below in response to this rejection. Reconsideration of the rejection to claims 7-9, 11-18, 20, 22-27 and 30-33, in light of the arguments provided below, is respectfully requested.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. MPEP § 2143.01. Second, there must be a reasonable expectation of success. MPEP § 2143.02. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2143.03.

In this case, Applicant submits that the Examiner has not made a *prima facie* case of obviousness for at least the reason that the references cited by the Examiner do not teach or suggest all claim limitations. In other words, the proposed combination does not arrive at the claimed invention.

#### Discussion Regarding Rejection To Amended Claim 7

In particular, the cited references do not teach or suggest the following limitation found in amended Claim 7:

a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft.

Limitations corresponding to or generally related to the foregoing limitation of claim 7 is also present in the remaining claims of the application. As discussed in further detail below, Applicant respectfully submits that neither Weaver nor Wagner, either alone or in combination, teach or suggest “a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft” is not taught or suggested in the prior art references.

The Examiner's Rejection Asserts the Weaver Teaches the Claimed Pin

The Examiner relies upon Weaver in view of Wagner for the rejection under 35 USC 103(a). The Examiner has asserted that "Weaver et al. discloses a fracture repair system including a first plate 50; a second plate 80; non-locking screws or pins 10 (or "movable body attachment component") with cap portions 12". The Examiner refers to FIGS. 1-2, 7-8 and 20-21 as well as to page 8, lines 12-22 and pages 9-10 for support for this assertion.

Page 8, lines 14-16, of Weaver cited by the Examiner states the following:

With the non-locking screws, fracture reduction is held by friction between the bone plate and bone. This friction is generated by tightening the non-locking screws in bone.

Another portion of Weaver, referring to FIG.1 cited by the Examiner, namely, page 6, lines 13 and 14, states that:

Non-locking screw 10 has a shaft 14 that is at least partially threaded for attachment to bone.

The Attachment Screws of Weaver do not Include Non-threaded Shafts as Claimed

The above-quoted passages of Weaver generally teach the use of a screw with threads for attachment to bone. However, the limitation of claim 7, as currently amended of "a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft" is not taught in Weaver. What is taught in Weaver is a screw that is threaded for attachment to bone. It is respectfully submitted that "a pin including a cylindrical shaft having a non-

threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft" is not the same as a screw having a shaft that is at least partially threaded for attachment to bone.

As set forth above, Weaver teaches a screw having a shaft, wherein the shaft "terminating in a tip" is threaded. Even if Weaver is assumed to have a small non-threaded shaft portion at or near the head, such shaft portion cannot be the claimed "shaft" because it does not terminate in a tip, as claimed. The "shaft" of Weaver that *terminates in the tip* is threaded.

Wagner does not have such a pin, nor is it alleged to have such a pin.

Accordingly, neither Weaver nor Wagner, either individually or in combination, teaches or suggests the claim limitation of "a pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft" as required in claim 7 as now amended. Thus, for at least this reason, a *prima facie* case of obviousness has not been presented and the rejection of claim 7 under 35 U.S.C. 103(a) should be withdrawn.

The Rejection of Claims 8-9, 11-18, 20, 22-27 and 30-33 Should be Withdrawn

As set forth above, claim 7 includes a limitation not found in the cited references. Each of claims 8-9, 11-18, 20, 22-27 and 30-33 includes or incorporates at least a similar or related limitation to the above-referenced limitation of claim 7. Accordingly, for at least the reasons cited above with respect to claim 7, the references cited by the Examiner in the October 9, 2007

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Office Action do not disclose all the limitations of claims 8-9, 11-18, 20, 22-27 and 30-33. Thus, the Examiner has not made a *prima facie* case of obviousness with respect to claims 5 and 11-28, and the Examiner's rejection of these claims under 35 U.S.C. § 103 should also be withdrawn.

### **New Claims**

New claims 36-38 have been added. These claims are dependent on new claim 36. New claim 36 includes the following limitation:

a first hole pin including a cylindrical shaft having a non-threaded external periphery terminating in a tip on a first end of the shaft and having a head extending from a second end of the shaft.

The absence of this limitation in Bono, Weaver and Wagner has been discussed above and, as such, these claims are believed to be allowable over the applied prior art. Please refer at least to FIGS. 21 and 22 and the description of these figures in the specification for support for these claims.

### **Conclusion**

For the above-described reasons it is respectfully submitted that the rejections to the claims have been overcome and that claims 1-4, 6-9, 11-18, 20, 22-27 and 30-33, was well as new claims 35-37, are currently in condition for

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allowance. A prompt and favorable action on the merits is respectfully requested.

Respectfully submitted,

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